Faculty of Economics and Business

FOREIGN CURRENCIES EXPOSURES OF MALAYSIA FIRMS: DOES HEDGING STRATEGY EXPLAIN STOCK RETURNS?

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Projek ini merupakan salah satu keperluan untuk
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This project is submitted in partial fulfillment of
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Statement of Originality

The work describe in this Final Year Project, entitled
FOREIGN CURRENCIES EXPOSURES OF MALAYSIA FIRMS.
DOES HEDGING STRATEGY EXPLAIN STOCK RETURNS?
is to the best the author's knowledge that of the author except
where due reference is made.

_____ _____

(Date submitted) (Chang Hui Siang, 20773)

ABSTRAK

FOREIGN CURRENCIES EXPOSURES OF MALAYSIA FIRMS. DOES HEDGING STRATEGY EXPLAIN STOCK RETURNS?

Oleh

Chang Hui Siang

Tujuan kajian ini ialah untuk menyelidik pendedahan mata wang asing terhadap firma-firma di Malaysia yang terlibat dalam pengekportan. Kajian ini juga menentukan hubungan antara keuntungan saham bagi firma-firma ini dengan nilai portfolio mata wang asing (USD, SGD, THB, JPY, POUND, dan EURO). Sampel kajian ini mengandungi 241 firma di Malaysia pada tahun 2008 dan 2009. 241 daripada 947 firma ini mempunyai maklumat pendedahan tentang USD (7.1 bilion), SGD (1.2 bilion), THB (72 milion), JPY (22 milion), POUND (0.1 bilion) and EURO (0.3 bilion) untuk dua tahun. Analisis ini bergantung pada akaun penerimaan untuk pendedahan ini dan aras signifikan bagi kenaikan dan penurunan mata wang Malaysia (MYR) terhadap keuntungan saham. Hasil kajian ini mendapati USD merupakan punca utama dalam pendedahan ini, diikuti oleh SGD, EURO, THB, POUND dan JPY. Sebaliknya, kajian ini mendapati EURO merupakan punca yang paling signifikan untuk pendedahan ini, di mana ia akan menyebabkan kenaikan keuntungan saham apabila nilai MYR/EURO meningkat. USD didapati tidak signifikan dalam penyumbangan kepada keuntungan firma. Namun begitu, kajian ini mendapati "hedging" memainkan peranan penting. Firma besar yang menggunakan strategi "hedging" untuk USD didapati meningkat pulangan apabila MYR/USD merosot nilainya setiap 1 peratus. Situasi ini menguntungkan para pengekport dan sebaliknya. Secara keseluruhanya, "hedging" memainkan peranan penting dalam pengurangan risiko kewangan MYR/USD.

Kata kunci: Pendedahan mata wang asing, Keuntungan saham, Strategi "hedging".

ABSTRACT

FOREIGN CURRENCIES EXPOSURES OF MALAYSIA FIRMS. DOES HEDGING STRATEGY EXPLAIN STOCK RETURNS?

By

Chang Hui Siang

The purpose of this study is to investigate exporter's currencies exposures in Malaysia listed firms. The study also attempt to determine the relationship between the stock returns of Malaysia listed firms and the foreign currencies exposures' portfolio (USD, SGD, THB, JPY, POUND, and EURO). The sample consists of 241 listed firms from 2008 to 2009. Out of 947 firms, 241 firms have foreign currencies exposures on USD (7.1 billion), SGD (1.2 billion), THB (72 billions), JPY (22 million), POUND (0.1 billion) and EURO (0.3 billion) for two years. This analysis based on account receivables for foreign currencies exposures and significant level of MYR appreciation and depreciation on the stock returns. The results reveal that the USD currency portfolio is the most dominant source of foreign currencies exposures, this followed by SGD, EURO, THB, POUND and JPY. In contrast, the main findings show that the EURO currency portfolio is the most significant source of currency exposure risk that will increase the firms' returns when MYR/EURO appreciate, which is opposite to our expectations. Despite that, USD currency portfolio is insignificant contribute to the firms' return. Nevertheless, the study finds that hedging play an important role. A larger firm with hedging on USD is found to increase stock returns when MYR depreciate 1 per cent against USD, which is benefited the exporters. The results were opposite if the exporter firms do not apply hedging contracts on foreign currencies. Overall, hedging strategy is found to be an effecting tool to reduce risk of USD exposures.

Key words: Foreign currencies exposures, Stock returns, Hedging strategy.

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GLOSSARY AND ABBREVIATIONS

- BNM Bank Negara Malaysia
- CNY Chinese Yuan
- DEM/ DM German Mark
- EURO European Euro
- ECU European Currency Unit
- GLS General Least Square
- HKD Hong Kong dollar
- JPY Japanese Yen
- MYR/RM Malaysian Ringgit
- RMB Renminbi
- THB Thailand Bhat
- USD United State dollar

CHAPTER 1

INTRODUCTION

1.0 Overview on Asian Financial Crisis

In 1997-1998, Malaysia faced economy difficulties when Asian Financial Crisis (AFC) hit the country. The financial crisis, or commonly referred to East Asian currency crisis (locally) started in July 1997. This crisis was originating from Thailand struck one country after another in almost no time (Hassan, 2002) and it affected currencies, stock market and other asset prices of several Asian countries. Indonesia, South Korea and Thailand are most affected countries, Hong Kong, Malaysia, Loas and Philippines. However, Mainland China, India, Taiwan and Singapore were unaffected by this crisis, Japan was unaffected much by this crisis but it had its own long-term economic difficulties.

During the 1997, Malaysia faced a large current account deficit of over 6 per cent of Gross Domestic Product (GDP). Speculators attacked the Malaysian Ringgit by illegally short selling derivatives of Malaysia shares in Singapore in July 1997. According to Athukorala (2001), between the first week of July 1997 and 7 January 1998, when the currency slide hit down (RM 4.88/$), the Ringgit depreciated against the dollar by almost 50 per cent. Reversal of foreign capital was the key factors behind the exchange rate collapse (Athukorala, 2001). The effects from that situation, many

Malaysia companies suffered the foreign exchange losses due to depreciation of Malaysian Ringgit against major currencies like US Dollar and the British Pound (Yazid *et. al*, 2008).

Moreover, the depreciation of the Ringgit and the decline in share prices reinforced each other, creating a vicious circle of exchange rate depreciation and falling stock prices. By the end of December in 1997, the Ringgit had depreciated by as much as 35.1 per cent against the United States dollar (USD), while by the end of Jun, position stock market prices fell by 44.8 per cent (BNM, 1997). This shows that the entire ordinary index of the Kuala Lumpur Stock Exchange (KLSE) had fallen by over 50 per cent from its pre-crisis level. The price-earning (P/E) ratio of KLSE declined from 22.9 to 11.3 over this period (Athukorala, 2001).

By August 1998, the economy was in recession and there were no signs of achieving currency and share price stability (Athukorala, 2001). The output of the real economy declined. The construction sector contracted 23.5 per cent, manufacturing shrunk 9 per cent and the agriculture sector 5.9 per cent. Overall, the country's gross domestic product (GDP) plunged 6.2 per cent in 1998. Moreover, real output declined by 6.7 per cent after 12 years of uninterrupted expansion averaging 7.8 per cent per annum and per capital income in nominal terms also declined to RM 11,835 (US$3,018) in 1998 from RM 12,051 in 1997 (US$4,284) (BNM, 1999).

According to Nur Adiana *et. al* (2008), this sudden currency crisis has thrown many financially strong companies out of business because the companies unable to face the challenges and the unexpected changes in the economy. The growing economy suddenly became a strange to them when depression took place in a split second. As a result, many of these companies were force into bankruptcy (financially distressed companies) when failed to pay their financial obligation due to inadequate cash flows (Nur Adiana *et. al*, 2008).

Most of the companies that are involved in international trade will face the sudden currency crisis. This risk exposure happens due to the dealing with multiple currencies in these companies and suddenly changes in exchange rates. Therefore, it is important for these companies to know the extent of exchange rate exposures that faces by they are facing.

There are different types of risk that need to be considering in companies that they exposed. For example, foreign exchange risk, strategic risk, reputational risk, operational risk, legal risk, regulatory risk, credit risk, market risk, project risk, program risk and business risk. According to Damodaran (2007), risk is an uncertainty about outcome. A risk is an event that needs enough information to assess both the probability and the consequences (Damodaran, 2007). In finance, risk can be defined as the variability of actual returns on investment around an expected return (Damodaran, 2007). The essence of good management is making the right choices when it comes to

dealing with different risks. The most successful companies are good at finding particular risks that they can exploit better than their competitors (Damodaran, 2007).

Moreover, risk is also defined a reduction of firm value due to the changes in the business environment (Pyle, 1997). According to Ries (2001), risk is variability in expected return the possibility that gain or loss will be greater than expected. The management of risk requires that the effects of unexpected gains and losses are somehow offset or buffered so that final, aggregate results are insulated from specific unexpected events (Ries, 2001).

Malaysia firms need to be familiar with difference type of risks that will affect the firms' performance and development. The study is focuses on foreign currencies exposures that face by the Malaysia listed companies. Foreign exchange risk is commonly defined as the additional variability experienced by a multinational corporation in its worldwide consolidated earnings that results from unexpected currency fluctuations (Jacque, 1981).

According to Carter *et. al* (2003a), foreign exchange exposure is an important source of risk for multinational corporations (MNCs). Similarly, Lin *et. al* (2007), mentioned that, in an internationalized and globalized environment, exchange rate risk is one of the major uncertainties involve in business transaction.

Foreign exchange exposure can be defined as the extent to which changes in exchanges rates affect stock returns and firm values (Bacha *et. al*, 2009). Foreign exchange exposure is a measurement of the sensitivity of the firm's cash flows to the changes in the exchange rate (Bodnar and Marston, 2000). In addition, according to Eiteman *et. al* (2007), foreign exchange exposure is a measurement of the potential for a firm's profitability, net cash flow, and market value to change, this due to the change in exchange rate.

When exchange rate changes, it may affect firms' profitability, value, and can also affect the level of competitiveness of firms that are exposed to exchange rate risks, or affect the net assets value that denominated in foreign currencies. Therefore, the unexpected changes in the foreign currency exchanges rates that relative to the domestic currency will change the company's earnings. For example, someone who owns a share in Hitachi, the Japanese company, he or she will lose the share if the value of the Yen drops (it mean that yen drops to 1.00 USD = 94.9871 JPY instead of 1.00 USD=86.6096 JPY). Then, his or her losses are due to the change in the exchange rate currency.

Moreover, another example is Malaysia firms that sell their goods and services (exporter) into other country and are paid (receive) in foreign currency, when the exchange rates had change (foreign currency is weak), the firms will receiving a lower amount of Malaysian Ringgit than originally anticipated. On the other hand, for the

firms that involves in import and pay foreign suppliers in foreign currency, the likelihood where the change in exchange rates (foreign currency is strong) mean that the firm has to pay more than what had planned.

1.1 Foreign Exchange Exposure

The firms that involve in international trade will be exposed to three main types of foreign exchange exposure, when the foreign exchange rates change. The three exposures are transaction exposure, economic (operational, competitive or cash flow) exposure and translation or accounting exposure (Popov and Stutzmann, 2003).

1.1.1 Transaction Exposure

Transaction exposure is the exposure that a firm is subject to when it has entered a contract denominated in a foreign currency but which is to be settled at a future date (Dahlquist and Robertsson, 2001). Moreover, Popov and Stutzmann (2003) defined that, transaction exposure is the part of economic exposure comprising future cash flows resulting from contractual commitments and denominated in foreign currency. This exposure measures changes in the value of outstanding financial obligations prior to a change in exchange rate but not due to be settled until after the exchange rates change. Therefore, it deals with changes in cash flows that result from existing contractual obligation (Eiteman *et. al*, 2007).

Transaction exposure is the effect of unanticipated changes in real exchange rate on nominal cash flows. This exposure is considered short-term exposure that can be hedged by using financial derivatives (Carter *et. al*, 2003a). It arises from the possibility that future incomes from a contract denominated in foreign currency change between the date when a firm commits to a transaction and the actual transaction date (Nydahl, 2001). It occurs when a company involves in import or export activities, purchasing or selling on goods and services, trades, borrows or lends funds when repayment to be made in a foreign currency, or sells fixed assets of its subsidiaries in a foreign country. All these operations involve time decay between the commitment of the transaction, for instance sale of an asset, and the receipt and delivery of the payment (Popov and Stutzmann, 2003).

According to Yazid (2008), transaction exposure is a contractual binding future foreign currencies denominated cash revenues (cash inflows) or expenses (outflows). For example, when a firm enters into agreement to buy raw materials from the United State (US), the firm is exposing to this exposure. This is due to the currency exchange rate between the two countries. If the USD weaken, the firm pay less in terms of the Ringgit (Ringgit become strong) to the US or vice-versa. (Yazid, 2008) Therefore, the future cash transactions of the firms may be affected by the any changes in the currency exchange rate.

1.1.2 Operating Exposure

Operating exposure has various types of name. It is also called economic exposure, competitive exposure, or strategic exposure (Eiteman *et. al*, 2007). According to Yazid (2008), economic exposure focuses on the impact of foreign exchange on future cash flows. Eiteman *et. al*, (2007), mentioned that, this exposure measures the changes in the present value of the firm resulting from any change in the future operating cash flows of the firm caused by an unexpected change in exchange rates. The change in the value depends on the effect of the exchange rate change on the future sales volume, prices, and costs. This exposure also refers to the extent to which the value of a firm as measured by the present value of its expected future cash flows will change when currency rates changes (Yazid, 2008). Future cash flows can be divided into cash flows resulting from contractual commitments and cash flows anticipated future transactions (Yazid, 2008).

In addition, operating exposure or economic exposure can be defined as the future effect of foreign exchange changes on liquidity, operation, financial structure and profit (Popov and Stutzmann, 2003). According to Giddy and Dufey (1992), economic exposure tied to the currency of determination of revenues and costs. They said that, since the world market price of oil is dollars, this is the effective currency in which PDVSA[1]'s future sales to Germany are made. If the ECU rises against the dollar,

[1] The Venezuelan state-owned oil company that set up an oil refinery near Rotterdam, The Netherlands for shipment to Germany and other continental European countries.

PDVSA must adjust its ECU price down to match those of competitors like Aramco. If the dollar rises against the ECU, PDVSA can and should raise prices to keep the dollar price the same, since competitors would do likewise. Clearly, the currency of determination is influence by the currency in which competitors denominate prices (Giddy and Dufey, 1992).

Operating exposure and transaction exposure are related where both of this exposure deals with future cash flows. However, operating exposure is different from transaction exposure in term of which cash flows are considered by management **(**Eiteman *et. al*, 2007). As mention early, transaction exposure is primarily a short-term exposure (Carter *et. al*, 2003a) and concerned with the future cash flows, which is already contracted **(**Eiteman *et. al*, 2007). In contrast, operating exposure focuses on expected that is not yet contracted for the future cash flows that might change because a change in exchange rates has altered international competitiveness **(**Eiteman *et. al*, 2007). However, this exposure is primarily long-term exposure that amounts to the impact of the unexpected changes in the exchange rates on the firm's competitive position (Carter *et. al*, 2003a).

1.1.3 Translation Exposure

Translation exposure can be defined as the potential for accounting-derived changes in owner's equity to occur because of the need to "translate" foreign currency financial statements of foreign subsidiaries into a single reporting currency to prepare worldwide consolidate financial statements (Eiteman *et. al*, 2007). Moreover, Nydahl (2001) said that, translation exposure is the difference between assets and liabilities that are exposed to currency fluctuations. It is also called as accounting exposures and it measures the impact of changes in exchange rate on the financial statements of the group of company. Therefore, it arises from converting financial statements expressed in foreign currencies into the home currency (Popov and Stutzmann, 2003).

According to Nydahl, 2001 mentions that considering an U.S. multinationals firm that operates in several different countries and has subsidiaries operating in local currency. Even if the subsidiary faces no exchange rate risk at all in local currency, the shareholders of the multinational firm might be interested in U.S. dollars. Therefore, the remittance from the foreign unit of the firm is exposed to exchange rate fluctuations when it is translated back to U.S. dollars (Nydahl, 2001).

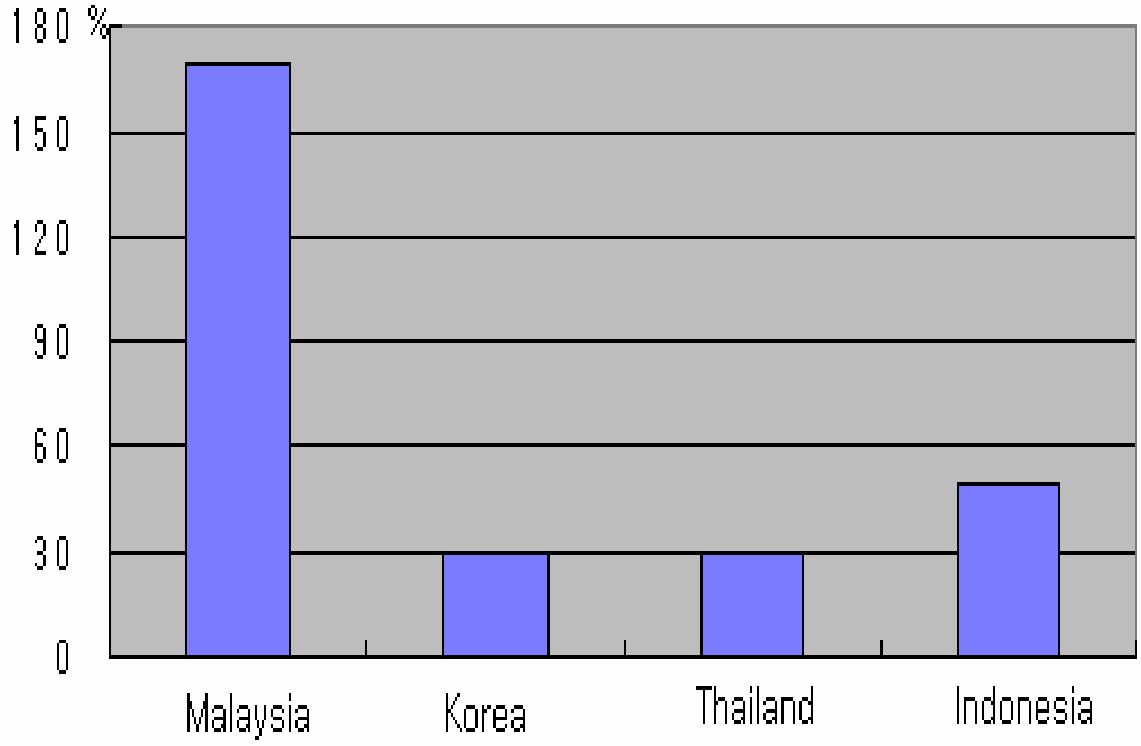
Popov and Stutzmann (2003) said that, asset and liabilities translated in current exchange rate are exposed, and those translated at historical rate not exposed because they use the same rate in this case. The exposure depends on the translation method will

be used. According to Yazid (2008), if the currency value change, translation exposure loss or gain may arise. He said that, translation exposure is not as popular as transaction exposure because the translation exposure only appears in firms' financial statement.

1.2 Problem Statement

Malaysia is a small open-economy, which heavily dependent on international trade. This can be showed at the figure below:

Figure 1.1: Asian Countries Foreign Exchange Holdings and Short-term Debt Ratios



Source: Samsung Economic Research Institute (1997)